

COVID-19 Scientific Advisory Group

Rapid Evidence Report

Rapid Evidence Report Methodology

1. Question Generation

Questions to be reviewed by the Scientific Advisory Group (SAG) are submitted to the committee co-chairs for consideration. SAG reviews requests from the Alberta Health Services (AHS) Emergency Coordination Centre (ECC), AHS Zone Emergency Operations Centres (ZEOCs), AHS Personal Protective Equipment (PPE) Task Force, or the Office of the Chief Medical Officer of Health (CMOH). Questions related to any aspect of COVID-19 are within scope.

2. Evidence Report Team

Each question is assigned to a team that includes the following roles:

- Research librarian
- Writer
- Writing assistant
- Primary reviewer (A committee member or is closely affiliated with SAG and has subject matter expertise)
- Secondary reviewers (Subject matter experts who are not necessarily a SAG committee member)

3. Literature Search

Evidence for the accepted questions is identified by a combination of structured database searches and hand-searching. Support for the literature search is provided by AHS Knowledge Resource Services (KRS). A research librarian is assigned to the question and works with the writer to identify the key concepts and search terms for the research question.

In general, the search is limited to articles published in 2019 and 2020, with no jurisdictional or language limits. The databases searched usually include OVID MEDLINE, EMBASE, LitCovid, TRIP PRO, PubMed, WHO Global research on coronavirus (database), Google and Google Scholar. Additional databases can be requested by the writer as appropriate for the research question and the type of evidence expected. Canadian and international repositories and evidence services are hand searched to identify reviews that have been conducted by other jurisdictions.

Resources suggested by the primary and secondary reviewers are included on an *ad hoc* basis, as are relevant articles identified over the course of the literature review that may not have been identified in the database search.

4. Evidence Screening and Synthesis

Literature is screened according to pre-determined inclusion and exclusion criteria. In addition to question-specific exclusion criteria, literature is subjected to the screening criteria used in the Mixed Methods Appraisal Tool (MMAT).

Due to the novelty of COVID-19 and the speed with which new evidence is available, a wide variety of evidence types are eligible for inclusion. Preprints, primary literature, secondary literature, and

grey literature from reputable sources are eligible for inclusion in the evidence summary. Literature based on the author's opinion (such as commentaries, opinion letters, and editorials) are not excluded automatically but must balance the body of evidence with the research question. Articles from non-academic sources (such as news reports, blog posts, or social media sources) are generally not eligible for inclusion but may be important as context for the topic.

The evidence is presented as a narrative synthesis. The exact structure and presentation of the report is left to the writer's discretion to best serve the evidence and the research questions.

5. Evaluation of the Evidence

A full critical appraisal of the evidence is not feasible due to the short turnaround times required by the review requestor (often 24-72 hours). A novel approach was developed, drawing on the methods used by reputable evidence groups such as the Oxford Centre for Evidence-Based Medicine, the Cochrane Library, and the AGREE Trust. This approach evolved over first four weeks of the SAG process, so early reviews are heterogeneous in their appraisal method.

Writers are asked to consider and comment on the volume, quality, applicability, and consistency of the evidence included in the report, paying special attention to sample sizes, comparators, and risk of bias. These comments are included in the appendix of reports that were completed after April 2020.

6. Expert Review

In most cases, the first draft of the report is reviewed by a primary and multiple secondary reviewers prior to presentation to the committee.

The primary reviewer is usually a member of SAG and is responsible for reviewing the report, providing feedback, commenting on gaps and included data sources, drafting or refining the recommendations, incorporating committee feedback, and reviewing accompanying communications briefs for accuracy.

The secondary reviewers are not necessarily affiliated with SAG but are subject matter experts who are able to provide additional feedback on the report and comment on gaps and included data sources.

At twice-weekly meetings, the full SAG committee is given the opportunity to discuss and provide feedback on the report that is incorporated prior to approval. Where necessary, SAG committee members are asked to vote on the key messages and recommendations after the meeting to support the consensus process.

7. Approval and Dissemination

Reports are submitted to the ECC for approval by the Medical Lead, the ECC Operations Chief, and the ECC Directors. Reports are also submitted to select members of the AHS Executive Leadership Team for information purposes.

Following approval, reports are sent to ECC Communications for posting to the SAG [website](#) and distribution to Zone Emergency Operations Centres and others as appropriate.

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